AMENDMENTS TO THE CLAIMS

1. (Withdrawn) A control valve for a vehicular brake system comprising:

a valve seat;

an adapter having a bore formed therethrough, said adapter fixed relative to said seat;

a pin slidably positioned within said bore and further comprising a first and second end, said first end of said pin comprising a rounded surface;

a biasing spring engaging said pin and said valve seat for forcing said pin in a direction that is one of away from said valve seat or towards said valve seat;

an armature that is slidably supported relative to said adapter and a magnetic pole member for movement between a fully open position and a closed position, said armature engaging said first end of said pin whereby movement of said armature causes movement of said pin, said armature and adapter further comprising complementary stepped portions wherein said adapter stepped portions are adapted to receive said armature stepped portions, said stepped portions defining a first lateral flux gap and a second lateral flux gap; and

a flux ring mounted on said adapter and being disposed about a portion of said armature, a third lateral flux gap being defined between the portion of said flux ring disposed about said armature and the portion of said armature disposed in said flux ring; and

an electrical coil for selectively inducing a magnetic field for moving said armature.

2. (Withdrawn) A control valve for a vehicular brake system comprising:

a valve seat;

an adapter having a bore formed therethrough, said adapter fixed relative to said seat;

a pin slidably positioned within said bore and further comprising a first and second end, said first end of said pin comprising a rounded surface;

a biasing spring engaging said pin and said valve seat for forcing said pin in a direction that is one of away from said valve seat or towards said valve seat;

a valve armature engaging said pin for movement therewith, said armature being slidably supported relative to said adapter for movement between a fully open position and a closed position, said armature defining a recess adapted to pivotably receive said rounded first end of said pin; and

an electrical coil for selectively inducing a magnetic field for moving said armature.

3. (Withdrawn) The valve defined in Claim 2 wherein said second end of said pin is slidably supported within a pin guide structure.

4. (Withdrawn) A control valve for a vehicular brake system comprising:

a valve seat;

an adapter having a bore formed therethrough, said adapter fixed relative to said seat;

a pin slidably positioned within said bore and further comprising a first and second end, said second end of said pin comprising a rounded surface;

a biasing spring engaging said pin and said valve seat for forcing said pin in a direction that is one of away from said valve seat or towards said valve seat;

a valve armature engaging said pin for movement therewith, said armature being slidably supported relative to said adapter for movement between a fully open position and a closed position;

said seat further defining a recess adapted to pivotably receive said rounded second end of said pin; and

an electrical coil for selectively inducing a magnetic field for moving said armature.

5. (Withdrawn) A control valve for a vehicular brake system comprising:

a valve seat;

an adapter having a bore formed therethrough, said adapter fixed relative to said seat;

a pin slidably positioned within said bore and further comprising a first and second end, said first end of said pin comprising a rounded surface;

a biasing spring engaging said pin and said valve seat for forcing said pin in a direction that is one of away from said valve seat or towards said valve seat;

an armature that is slidably supported relative to said adapter and said magnetic pole member for movement between a fully open position and a closed position, said armature engaging said first end of said pin whereby movement of said armature causes movement of said pin, said armature and adapter further comprising complementary stepped portions wherein said adapter stepped portions are adapted to receive said armature stepped portions, said stepped portions defining a plurality of flux gaps; and

an electrical coil for selectively inducing a magnetic field for moving said armature.

6. (Currently Amended) A coil operated control valve comprising:

a valve seat;

a pole piece defining at least a first pole shoulder and a second pole shoulder that are both stationary relative to said valve seat;

a coil for selectively inducing a magnetic flux in said pole piece;

an armature moving a valve portion relative to said valve seat to control flow of a fluid through said valve seat, said armature defining at least a first armature shoulder and a second armature shoulder, said first armature shoulder cooperating with said first pole shoulder to define a first lateral flux gap and said second armature shoulder cooperating with said second pole shoulder to define a second lateral flux gap; and

a closed tube structure formed by a sleeve wherein said sleeve forms a pressure boundary about the armature, and the armature is disposed within said sleeve, and said coil is disposed outside said sleeve.

7. (Original) The control valve defined in Claim 6 wherein said pole piece is fixed relative to said valve seat.

8. (Original) The control valve defined in Claim 7 wherein said armature moves a pin on which the valve portion is formed.

9. (Previously Presented) The control valve defined in Claim 8 wherein a lateral gap is formed by a tubular flux ring having an inner diameter that is greater than a major outer diameter of the armature.

10. (Currently Amended) The control valve defined in Claim 8 wherein [a] the first lateral flux gap is formed external to the major outer diameter of the armature and [a] the second lateral flux gap is internal to the major outer diameter of the armature.

11. (Withdrawn) A control valve for a vehicular brake system comprising:

a valve seat;

an adapter having a bore formed therethrough, said adapter fixed relative to said seat;

an armature;

a biasing spring engaging said armature and a magnetic pole member for forcing said armature in a direction that is one of away from said valve seat or towards said valve seat;

said armature being slidably supported relative to the magnetic pole member for movement between a fully open position and a closed position, said armature engaging said valve seat whereby movement of said armature causes said armature to respectively unseat or seat the valve;

said armature and magnetic pole member further comprising complementary stepped portions wherein said pole member stepped portions are adapted to receive said armature stepped portions, said stepped portions defining a first lateral flux gap and second lateral flux gap; and

a flux ring mounted on said magnetic pole member and is disposed about a portion of said armature, a third lateral flux gap being defined between the portion of said flux ring disposed about said armature and the portion of said armature disposed on said flux ring; and

an electrical coil for selectively inducing a magnetic field for moving said armature.

12. (New) The control valve defined in Claim 6 further comprising an adapter wherein the closed tube structure is sealed with the adapter; and

the armature cooperates with the adapter to allow flow through the valve.

13. (New) The control valve defined in Claim 12 wherein the sleeve is made from a non-magnetic material.

14. (New) The control valve defined in Claim 9 wherein the first lateral flux gap and the second lateral flux gap are located in a stepped relation to each other.

15. (New) The control valve defined in Claim 14 wherein the first lateral flux gap and the second lateral flux gap are located at a circumferential radius that is less than that of the pole piece.

16. (New) The control valve defined in Claim 6 wherein said pole piece is disposed within said sleeve.

17. (New) A coil operated control valve comprising:

a valve seat;

a pole piece defining at least a first pole shoulder and a second pole shoulder that are both stationary relative to said valve seat;

an armature moving a valve portion relative to said valve seat to control flow of a fluid through said valve seat, said armature defining at least a first armature shoulder and a second armature shoulder, said first armature shoulder cooperating with said first pole shoulder to define a first lateral flux gap and said second armature shoulder cooperating with said second pole shoulder to define a second lateral flux gap; and

a flux ring mounted about a portion of said armature, a third lateral flux gap being defined between the portion of said flux ring disposed about said armature and the portion of said armature disposed in said flux ring.

18. (New) The control valve defined in Claim 17 further comprising a pressure containing structure positioned between the flux ring and the armature.

19. (New) The control valve defined in Claim 18 wherein the pressure containing structure is a non-magnetic sleeve; and

the armature is positioned within the sleeve.

20. (New) A coil operated control valve comprising:

a valve seat;

a pole piece defining at least a first pole shoulder and a second pole shoulder that are both stationary relative to said valve seat; and

an armature moving a valve portion relative to said valve seat to control flow of a fluid through said valve seat, said armature defining at least a first armature shoulder and a second armature shoulder, said first armature shoulder cooperating with said first pole shoulder to define a first lateral flux gap and said second armature shoulder cooperating with said second pole shoulder to define a second lateral flux gap, wherein the first lateral flux gap is located adjacent to and in a stepped relationship with the second lateral flux gap.

21. (New) The control valve defined in Claim 20 wherein the first lateral flux gap is formed external to a major outer diameter of the armature and the second lateral flux gap is formed internal to the major outer diameter of the armature.